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DEVICE FOR LONGITUDINAL GUIDANCE OF A MOTOR VEHICLE BY INTERVENTION IN THE BRAKE SYSTEM

FIELD OF THE INVENTION

The present invention relates to a device for longitudinal guidance of a motor vehicle, having a driver assistance system which outputs a brake request signal to a brake control device.

BACKGROUND INFORMATION

One example of such a device is an ACC (Adaptive Cruise Control) system which makes it possible to adjust the velocity of a vehicle to the velocity of a preceding vehicle, located with the help of a radar system, so that the preceding vehicle is followed at a suitable safety distance. To do so, the driver assistance system intervenes in the drive system and, if necessary, also intervenes in the brake system of the vehicle. The intervention in the brake system has conventionally been accomplished by regulating the braking deceleration to a setpoint braking deceleration calculated by the driver assistance system. When this regulation takes place in the brake control unit, the setpoint braking deceleration forms the brake request signal which is output by the driver assistance system.

ACC systems in use today are generally designed for travel at a high velocity, e.g., on a highway. However, there are efforts to expand the function range of such systems to low velocities and in particular to include a stop-and-go function in which the vehicle is automatically brakable to a standstill when the preceding vehicle stops, e.g., in a traffic jam. The problem occurring then is that inaccuracies during measuring